

ABSTRACT

The present invention relates to the use of a silicon-based porous catalytic system for oligomerizing light olefins, the porous silicon-based catalytic system having an average pore diameter of between about 1 nm and about 5 nm and an acidity level of between about 150 $\mu\text{mol/g}$ and about 650 $\mu\text{mol/g}$, and prepared from at least one hydrolysable silicon-based compound, or other source of silicon, and at least one non-ionic surface active agent. The invention also relates to a process for oligomerizing light olefins using the silicon-based porous catalytic system, and to certain silicon-based porous catalytic systems.